	Application No.	Applicant(s)
Notice of Allowability	09/126,884	BERTRAM ET AL.
	Examiner	Art Unit
	Brian D. Nguyen	2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *the amendment filed on 9/19/05.*

2. ☒ The allowed claim(s) is/are *1-3, 5-6, 23-25, 7-8, 10, 26, 12, 18-20, and 27-29 (renumbered 1-19, respectively).*

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some*   c) ☐ None of the:

        1. ☐ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

        3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

        1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of

        Paper No./Mail Date _____.

    Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)

6. ☒ Interview Summary (PTO-413), Paper No./Mail Date *11192005* .

7. ☒ Examiner's Amendment/Comment

8. ☐ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____.

11/19/05

BRIAN NGUYEN
PRIMARY EXAMINER

EXAMINER'S AMENDMENT

1.   An examiner's amendment to the record appears below. Should the changes and/or

additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR

1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the

payment of the issue fee.

2.   Authorization for this examiner's amendment was given in a telephone interview with

Mike Bentley and Eamon J. Wall on 11/17/05.

3.   **The claims have been amended as follows (claims 4, 9, 11, 13-17, and 21-22 are**

cancelled):

        1. (Currently Amended) A method for ~~processing~~ forming a an output transport stream

~~comprising a plurality of time slots~~ for transporting ~~therein respective~~ a plurality of encoded

programs having a common time base indicated by periodically inserted time stamps provided by

a received transport stream, said method comprising:

        storing, in a file server, the plurality of encoded programs;

        defining a plurality of timeslots within said output transport stream, wherein each

timeslot is associated with one of the encoded programs;

        including the encoded programs within the associated timeslots of the output transport

stream, in response to subscriber requests for the encoded programs, by including transport

packets associated with each of the encoded programs within the associated timeslots within said

output transport stream in a manner for maintaining a fixed number of timeslots between

consecutive transport packets associated with each of the encoded programs;

identifying, for the requesting subscribers, respective timeslots including the requested encoded programs; and

modifying packets associated with a desired time slot of a received transport stream to produce an output transport stream; and

transmitting said output transport stream;

said transmitted output transport stream including respective modified wherein the encoded programs in the output transport stream having have said common time base indicated by said periodically inserted time stamps provided by said received transport stream, wherein a modified packet uses a matching time stamp of said received transport stream.

2. (Currently Amended) The method of claim 1, further comprising:

modifying transport packets associated with one of the plurality of timeslots to produce a modified transport stream;

wherein said modifying comprises replacing said transport packets associated with said desired time slot one of the plurality of timeslots with other packets.

3. (Currently Amended) The method of claim 2, wherein initial and replacement packets associated with said desired time slot represent respective first and second programs the transport packets associated with the one of the plurality of timeslots represent a first program from the plurality of encoded programs and the other packets represent a second program from the plurality of encoded programs.

4. Cancelled

5. (Previously Presented) The method of claim 3, wherein one of said first and second programs comprises a NULL program.

6. (Currently Amended) The method of claim 3, wherein the step of modifying transport

packets further comprises:

(1) examining a packet received from said received transport stream to determine if a slot

associated with said received packet corresponds to an insertion slot for said second program to

be inserted;

(2) inserting, into an the output transport stream, a next packet of said second program if

said slot associated with said received packet corresponds to an insertion slot for said second

program to be inserted;

(3) inserting, into said output transport stream, said received packet if said slot associated

with said received packet does not correspond to an insertion slot for said second program to be

inserted; and

(4) repeating steps (1) through (3) for each packet of said received transport stream until

a replacement stream has been fully inserted into said output transport stream.

7. (Currently Amended) An apparatus for processing a received transport stream

comprising N time slots for transporting therein N respective programs having a common time

base indicated by periodically inserted time stamps, where N is an integer greater than one, said

apparatus comprising:

a transport clock source;

a frequency divider for dividing a timing signal from said transport clock source into N

timing signals;

N transport encoders coupled to said frequency divider for respectively receiving and

encoding said N programs to produce N encoded program streams in response to subscriber

requests for the N programs, each of the N encoded program streams including a plurality of

program transport packets;

a file server coupled to the N transport encoders for storing the N encoded program

streams; and

a multiplexer, coupled to ~~an output of said N transport encoders~~ the file server, for

receiving ~~and modifying packets associated with a desired time slot of one or more transport~~

~~encoded program streams~~ the program transport packets of the N encoded program streams, said

multiplexer inserting said program transport packets into timeslots of an output transport stream,

wherein each timeslot of the output transport stream is associated with one of the N encoded

program streams such that each timeslot of the output transport stream is adapted for transporting

program transport packets associated with the N encoded program streams in a manner for

maintaining a fixed number of timeslots between consecutive program transport packets

associated with each of the N encoded program streams, wherein respective timeslots including

the requested N programs are identified for the requesting subscribers;~~, said multiplexer~~

~~producing a processed transport stream, said processed transport stream including respective~~

~~modified~~

wherein said programs ~~having~~ have said common time base indicated by said periodically

inserted time stamps provided by said received transport stream~~, wherein a modified packet uses~~

~~a matching time stamp of said received transport stream~~.

8. (Currently Amended) The apparatus of claim 7, wherein ~~the~~ each of the N encoded

program streams is encoded at a clock rate of CLK/N, wherein CLK comprises a clock rate of

the timing signal from the transport clock source.

9. Cancelled

10. (Currently Amended) The apparatus of claim 7, wherein said modifying comprises replacing said packets associated with said desired time slot further comprising:

a modification module coupled to the multiplexer, for modifying program transport packets associated with one of the timeslots of the output transport stream to produce a modified transport stream by replacing program transport packets associated with one of the timeslots of the output transport stream with other packets.

11. Cancelled

12. (Currently Amended) Apparatus An apparatus for processing a received transport stream comprising a plurality of time slots timeslots for transporting therein a respective plurality of programs having a common time base indicated by periodically inserted time stamps, said apparatus comprising:

a transport clock source;

a frequency divider, for dividing a transport clock timing signal from said transport clock source into a plurality of timing signals; and

a plurality of encoders, each of said encoders coupled to said frequency divider for respectively receiving and encoding said plurality of programs to produce [a] respective encoded program stream streams, each of the encoded program streams including respective pluralities of program transport packets, each of said encoded program streams being coupled to a switch via a respective buffer memory file server;

said file server storing the encoded program streams and selectively providing the

encoded program streams to the switch in response to subscriber requests for the encoded

program streams;

said switch inserting program transport packets of the respective encoded program

streams from said file server into timeslots of an output transport stream, wherein each timeslot

of said output transport stream is associated with a different one of the plurality of encoded

program streams such that each timeslot of the output transport stream is adapted for transporting

program transport packets associated with each of the encoded program streams in a manner for

maintaining a fixed number of timeslots between consecutive program transport packets

associated with each of the encoded program streams, wherein respective timeslots including the

requested encoded program streams are identified for the requesting subscribers; ~~said switch~~

~~selectively coupling program stream transport packets from said buffer memories for modifying~~

~~packets associated with a desired time slot to produce a slotted transport stream, said slotted~~

~~transport stream including respective modified~~

wherein said programs ~~having~~ have said common time base indicated by said periodically

inserted time stamps provided by said received transport stream~~, wherein a modified packet uses~~

~~a matching time stamp of said received transport stream~~.

13. Cancelled

14. Cancelled

15. Cancelled

10. Cancelled

17. Cancelled

18. (Currently Amended) The apparatus of claim 12, wherein a bitrate of ~~an~~ each encoded ~~transport~~ program stream is adapted by adding NULL packets to the ~~slotted~~ output transport stream.

19. (Previously Presented) The apparatus of claim 18, wherein a number of NULL packets to add is determined according to at least one of an insertion rate, a slot repetition period and a packet count.

20. (Currently Amended) The apparatus of claim 12, wherein a bitrate of an encoded ~~transport~~ program stream is adapted by deleting program transport packets from the ~~transport~~ encoded ~~transport~~ program stream.

21. Cancelled

22. Cancelled

23. (Currently Amended) The method of claim 1, wherein a bitrate of said output transport stream is adjusted by deleting ~~program~~ transport packets and inserting NULL transport packets within said ~~processed~~ output transport stream.

24. (Currently Amended) The method of claim 23, wherein a number of NULL transport packets to insert is determined according to at least one of an insertion rate, a slot repetition period and a packet count.

25. (Currently Amended) The method of claim 23, wherein a number of ~~program~~ transport packets to delete is determined according to at least one of an deletion rate, a slot repetition period and a packet count.

26. (Currently Amended) The apparatus of claim 10, wherein initial and replacement packets associated with ~~said desired time slot~~ the one of the timeslots of the output transport stream represent respective first and second programs.

27. (Currently Amended) Apparatus for generating a transport stream comprising a plurality of programs, each of said programs having associated with it a respective time slot, said apparatus comprising:

a frequency divider, for dividing a transport clock timing signal into a plurality of timing signals; and

a plurality of encoders, each of said encoders encoding a program stream from a received transport stream, in response to a respective timing signal, to produce a respective encoded program stream, each of said encoded program streams being coupled to a switch via a ~~respective buffer memory~~ file server;

said file server storing the encoded program streams and selectively providing the encoded program streams to the switch in response to subscriber requests for the encoded program streams;

said switch selectively ~~coupling program stream transport packets from said buffer memories to produce a slotted transport stream, wherein each transport packet of each program stream is separated by a transport packet from at least one other program stream~~ inserting program transport packets of the respective encoded program streams from said file server into timeslots of a slotted transport stream, wherein each timeslot of the slotted transport stream is associated with a different one of the plurality of encoded program streams such that each timeslot of the slotted transport stream is adapted for transporting program transport packets

associated with each of the encoded program streams in a manner for maintaining a fixed

number of timeslots between consecutive program transport packets associated with each of the

encoded program streams, wherein respective timeslots including the requested encoded program

streams are identified for the requesting subscribers; and

said switch selectively ~~coupling~~ inserting ~~program stream~~ other transport packets from

said ~~buffer memories~~ file server ~~for modifying~~ in place of the program transport packets

associated with a desired time slot to ~~produce a~~ modify said slotted transport stream, said

modified slotted transport stream including respective modified programs having ~~said~~ a common

time base indicated by ~~said~~ periodically inserted time stamps provided by said received transport

stream, ~~wherein a modified packet uses a matching time stamp of said received transport stream.~~

28. (currently Amended) The apparatus of claim 27, wherein said ~~corresponding~~ desired

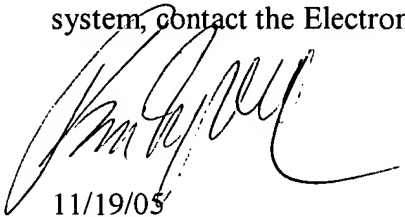time slot comprises an unused time slot.

29. (Currently Amended) The apparatus of claim 28, wherein said unused time slot

~~included~~ includes NULL transport packets.

4.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Brian D. Nguyen whose telephone number is (571) 272-3084.

The examiner can normally be reached on 7:30-6:00 Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Chau Nguyen can be reached on (571) 272-3126. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

11/19/05

BRIAN NGUYEN
PRIMARY EXAMINER